

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A Y-zeolite-containing composite material, characterized in that said composite material comprises nest-like comprising a nest structure, said composite material comprising 30-85% Y-zeolite by weight and being matrix formed after crystallization of kaolin, and the crystal size of said Y-zeolite is in a range of 10-400 nm, and an equivalent diameter of said nest structure is in a range of 1000-3000 nm.
2. (Currently Amended) The composite material according to claim 1, characterized in that wherein said composite material is made from materials comprising the kaolin by in-situ crystallization.
3. (Cancelled)
4. (Currently Amended) The composite material according to claim 3, characterized in that 1, wherein the content of Y-zeolite is in the range of 30-70% by weight of the composite material.
5. (Currently Amended) The composite material according to claim 1, characterized in that wherein said nest-like nest structure is comprised of at least 70% of rodlike rod crystal, wherein said rodlike rod crystal has a diameter of 50-200 nm and a length of 100-600 nm.

6. (Currently Amended) The composite material according to claim 5, characterized in that said nest-like wherein the nest structure further comprises flaky crystal or blocky crystal, wherein the blocky crystal has an equivalent diameter of about 50-500 nm and the flaky crystal has a thickness of about 50-200 nm.

7. (Cancelled)

8. (Currently Amended) The composite material according to claim 5, characterized in that said rodlike wherein said rod crystal, flaky crystal and blocky crystal are comprised of matrix formed after in-situ crystallization of the materials comprising kaolin and Y-zeolite on [[the]] a surface of said matrix.

9. (Currently Amended) The composite material according to claim 2, characterized in that wherein said materials comprising the kaolin is selected from hard kaolin or soft kaolin.

10. (Currently Amended) The composite material according to claim 1, characterized in that the wherein an apparent bulk density of the composite material is 0.50-0.75 g/cm³ and [[the]] a surface area is 280-800 m²/g.

11. (Currently Amended) The composite material according to claim 1, characterized in that wherein [[the]] a volume of 17-3000 Å mesopore measured by [[the]] BET method is 0.03-0.076 ml/g, accounting for 10-35% of [[the]] a total volume of the pore.

12. (Currently Amended) The composite material according to claim 1, characterized in that the wherein an SiO₂/Al₂O₃ ratio in Y-zeolite is 4.0-5.5 by mole.

13. (Currently Amended) The composite material according to claim 1, characterized in that wherein said Y-zeolite is selected from the group consisting of NaY, HY, REY and REHY.

14. (Currently Amended) A process for preparing the composite material according to claim 1, comprising the following steps:

(1) ~~Calcining calcining~~ and dehydrating ~~raw material comprising~~ kaolin at 500-690°C to convert it into metakaolin, and then into a powder with diameters less than 230 µm;

(2) ~~Adding adding~~ sodium silicate, guide agent, solution of sodium hydroxide, and water to metakaolin powder to make a reaction feed with a ratio of (1-2.5)Na₂O: Al₂O₃:(4-9)SiO₂:(40-100)H₂O, wherein [[the]] a ratio by weight of the guide agent to the metakaolin is 0.1-1.0;

(3) ~~Crystallizing crystallizing~~ the reaction feed made in step (2) at 88-98°C under stirring, and then filtering and drying.

15. (Currently Amended) The process according to claim 14, ~~characterized in that~~
wherein the composition of said guide agent in step (2) is $(10\text{-}17)\text{SiO}_2:(0.7\text{-}1.3)\text{Al}_2\text{O}_3:(11\text{-}18)\text{Na}_2\text{O}:(200\text{-}350)\text{H}_2\text{O}$, and the guide agent is made by aging at $4\text{-}20^\circ\text{C}$.

16. (Currently Amended) The process according to claim 14, ~~characterized in that~~
wherein the temperature for calcining raw material powder in step (1) is in [[the]] a range of $600\text{-}690^\circ\text{C}$.

17. (Currently Amended) The process according to claim 14, ~~characterized in that~~
wherein a stirring rate for crystallization in step (3) is $200\text{-}1000$ rpm and [[the]] a crystallization time is $16\text{-}48$ hours.

18. (Currently Amended) The process according to claim 14, ~~characterized in that~~
wherein a concentration of the added solution of sodium hydroxide in step (2) is $1\text{-}10\%$ by weight.

19. (Currently Amended) The process according to claim 14, ~~characterized in that~~
wherein said kaolin in step (1) is selected from hard kaolin or soft kaolin, containing more than 75% by weight of crystal.

20. (Currently Amended) The process according to claim 14, ~~characterized in that~~
wherein an auxiliary accounting for $0.1\text{-}2.5\%$ by weight of the total reaction feed is further added

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to the feed in step (2), and the auxiliary is selected from the group consisting of sodium dodecyl sulfonate, hexadecyl trimethyl ammonium bromide, polyethylene glycol, oxalic acid, citric acid, sodium tartrate, [[or]] and ethylenediamine tetraacetic acid.

21. (New) A process for preparing the composite material according to claim 1, comprising the following steps:

- (1) calcining and dehydrating kaolin at 500-690°C to convert it into metakaolin, and then into a powder with diameters less than 230 µm;
- (2) adding sodium silicate, guide agent, solution of sodium hydroxide, and water to metakaolin powder to make a reaction feed with a ratio of (1-2.5)Na₂O: Al₂O₃: (4-9)SiO₂: (40-100)H₂O, wherein said guide agent is made by aging at 4-20 °C and a ratio by weight of the guide agent to the metakaolin is 0.1-1.0;
- (3) crystallizing the reaction feed made in step (2) at 88-98°C under stirring, and then filtering and drying.